

## UNCLASSIFIED

<b>RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)</b>								DATE <b>February 2000</b>	
BUDGET ACTIVITY <b>03 - Advanced Technology Development</b>				PE NUMBER AND TITLE <b>0603723F Environmental Engineering Technology</b>				PROJECT <b>632103</b>	
COST (\$ in Thousands)	FY 1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
632103    Environmental Quality Technology	2,459	5,435	0	0	0	0	0	0	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0
<p>(U) <b><u>A. Mission Description</u></b>            This program develops and demonstrates advanced technologies to address Air Force-unique environmental compliance, site remediation, and pollution prevention problems. Specific projects develop and demonstrate advanced technologies to reduce hazardous emissions from weapon systems, minimize Air Force industrial waste, eliminate toxic pollutant releases from Air Force operations as directed by the National Environmental Policy Act, and solve environmental reclamation problems. Improving these capabilities aids the Air Force in maintaining environmental quality, preparing timely responses to public concerns, preparing accurate environmental impact statements, and minimizing unfavorable legal challenges to Air Force operations. Note: In FY 2000, the Air Force terminated this program. However, Congress added \$1.5 million in FY 2000 to restore this program and added another \$4.0 million for Environmental Systems Management Analysis and Reporting Network (E-SMART).</p>									
(U) <b><u>FY 1999 (\$ in Thousands)</u></b>									
(U)    \$714	Developed and demonstrated technologies and design criteria for monitoring, characterization, assessment, process control, and disposal to reduce environmental impact of Air Force operations by integrating real-time Dense Non-Aqueous Phase Liquid (DNAPL) sensing instrumentation with horizontal directional drilling technology. Completed development and demonstration of protocol for intrinsic remediation of DNAPLs.								
(U)    \$1,550	Developed scientific and engineering tools to reduce weapon system sustainment costs by initiating integration of energy generation and water recovery unit operations with treatment systems for Air Force operations including Air Logistics Centers.								
(U)    \$195	Demonstrated technologies to reduce/destroy wastes and reduce contamination of the environment by Air Force operations and to comply with the Clean Air Act by completing development of the recirculating paint booth with biofilter.								
(U)    \$2,459	Total								
(U) <b><u>FY 2000 (\$ in Thousands)</u></b>									
(U)    \$1,482	Develop novel reactor systems to reduce weapon system life cycle costs for logistics and sustainment. Develop rapid Mixed Base Hydrogen Peroxide (MBHP) production in support of directed energy weapon systems. Develop deployable waste management systems for Air Expeditionary Forces (AEF).								
(U)    \$3,953	Eliminate hardware, software, and data format incompatibilities by defining an universal architecture for constructing modular monitoring								
<div style="display: flex; justify-content: space-between;"> <span>Project 632103</span> <span>Page 1 of 3 Pages</span> <span>Exhibit R-2 (PE 0603723F)</span> </div>									

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<p>(U) <b><u>A. Mission Description Continued</u></b></p> <p>(U) <b><u>FY 2000 (\$ in Thousands) Continued</u></b></p> <p style="margin-left: 40px;">networks applicable to fixed installations and deployed 'bare base' operations. Demonstrate an automated hazard warning and response capability suitable for use in fixed base and deployed operations. Validate the Environmental Systems Management Analysis and Reporting Network (E-SMART) as a viable architecture for warning of operational toxic materials.</p> <p>(U) \$5,435                      Total</p> <p>(U) <b><u>FY 2001 (\$ in Thousands)</u></b></p> <p>(U) \$0                          No Activity</p> <p>(U) \$0                          Total</p> <p>(U) <b><u>B. Budget Activity Justification</u></b></p> <p style="margin-left: 40px;">This program is in Budget Activity 3, Advanced Technology Development, since it develops and demonstrates advanced technologies to address Air Force-unique environmental problems.</p> <p>(U) <b><u>C. Program Change Summary (\$ in Thousands)</u></b></p> <table style="width: 100%; margin-left: 40px;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>FY 1999</u></th> <th style="text-align: center;"><u>FY 2000</u></th> <th style="text-align: center;"><u>FY 2001</u></th> <th style="text-align: center;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget (FY 2000 PBR)</td> <td style="text-align: center;">2,579</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td>(U) Appropriated Value</td> <td style="text-align: center;">2,663</td> <td style="text-align: center;">5,500</td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="margin-left: 20px;">a. Congressional/General Reductions</td> <td style="text-align: center;">-84</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="margin-left: 20px;">b. Small Business Innovative Research</td> <td style="text-align: center;">-57</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="margin-left: 20px;">c. Omnibus or Other Above Threshold Reprogram</td> <td></td> <td style="text-align: center;">-30</td> <td></td> <td></td> </tr> <tr> <td style="margin-left: 20px;">d. Below Threshold Reprogram</td> <td style="text-align: center;">-49</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="margin-left: 20px;">e. Rescissions</td> <td style="text-align: center;">-14</td> <td style="text-align: center;">-35</td> <td></td> <td></td> </tr> <tr> <td style="margin-left: 20px;">f. Other</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Budget Years Since FY 2000 PBR</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Current Budget Submit/FY 2001 PBR</td> <td style="text-align: center;">2,459</td> <td style="text-align: center;">5,435</td> <td style="text-align: center;">0</td> <td style="text-align: center;">TBD</td> </tr> </tbody> </table> <p>(U) <b><u>Significant Program Changes:</u></b></p> <p style="margin-left: 40px;">In FY 2000, the Air Force terminated this program. However, Congress added \$1.5 million to restore this program and another \$4.0 million for Environmental Systems Management Analysis and Reporting Network (E-SMART).</p>					<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Cost</u>	(U) Previous President's Budget (FY 2000 PBR)	2,579	0	0		(U) Appropriated Value	2,663	5,500			(U) Adjustments to Appropriated Value					a. Congressional/General Reductions	-84				b. Small Business Innovative Research	-57				c. Omnibus or Other Above Threshold Reprogram		-30			d. Below Threshold Reprogram	-49				e. Rescissions	-14	-35			f. Other					(U) Adjustments to Budget Years Since FY 2000 PBR					(U) Current Budget Submit/FY 2001 PBR	2,459	5,435	0	TBD
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<p>(U) <b><u>D. Other Program Funding Summary (\$ in Thousands)</u></b></p> <p>(U) Related Activities:</p> <p>(U) PE 0602102F, Materials.</p> <p>(U) PE 0602202F, Human Effectiveness Applied Research.</p> <p>(U) PE 0602203F, Aerospace Propulsion.</p> <p>(U) PE 0603112F, Advanced Materials for Weapon Systems</p> <p>(U) PE 0603211F, Aerospace Structures.</p> <p>(U) PE 0603231F, Crew Systems and Personnel Protection Technology.</p> <p>(U) PE 0603716D, Strategic Environmental Research and Development Program.</p> <p>(U) PE 0603851D, Environmental Security Technology Certification Program</p> <p>(U) PE 0604706F, Life Support Systems.</p> <p>(U) PE 0604708F, Other Operational Equipment.</p> <p>(U) This project has been coordinated through the Reliance process to harmonize efforts and eliminate duplication.</p> <p>(U) <b><u>E. Acquisition Strategy</u></b></p> <p>Not Applicable.</p> <p>(U) <b><u>F. Schedule Profile</u></b></p> <p>(U) Not Applicable.</p>		
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